

# Exhibit C

**UNITED STATES DISTRICT COURT  
SOUTHERN DISTRICT OF NEW YORK**

**SECURITIES AND EXCHANGE COMMISSION,**

**Plaintiff,**

**- against -**

**RIPPLE LABS, INC., BRADLEY GARLINGHOUSE,  
and CHRISTIAN A. LARSEN,**

**Defendants.**

**20 Civ. 10832 (AT)  
ECF Case**

**EXPERT REBUTTAL REPORT OF KRISTINA SHAMPANIER, PH.D.**

**November 12, 2021**

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## **I. QUALIFICATIONS**

1. I am a Senior Vice President at Compass Lexecon, an economic consulting firm. I received a Ph.D. in Business and Management Science (with specialization in Marketing) from the MIT Sloan School of Management in 2007. Prior to that, I received a Master's degree in Mathematics from Moscow State University in 2001 and a Master's degree in Economics from the New Economic School (Moscow) in 2002, both cum laude. While at MIT, I conducted research on judgment, decision making, and consumer behavior.

2. At MIT, and subsequently in litigation consulting settings, I designed, conducted, and analyzed numerous laboratory, online, and field experiments and other "primary data" studies, including in survey format. I have extensive experience in survey development and administration, and analysis of data on consumer behavior in academic, consulting, and litigation settings. I have also taught outside audiences on survey design and published in academic journals and practitioner publications.

3. I have been retained as an expert witness in various matters, including matters relating to trademark infringement, false advertising, employment, and healthcare. In each of these matters, I was retained to design and field a survey, experiment, or another "primary data" study, or to evaluate such studies conducted by others.

4. My Curriculum Vitae is attached as Appendix A to this report, and includes all publications I have authored in the last ten years.

5. Appendix B lists the materials I have considered in forming my opinions. I reserve the right to update my opinions if additional information becomes available.

6. Compass Lexecon is compensated for my work on this matter at the rate of \$975 per hour. I receive compensation from Compass Lexecon based on my billing and billings of staff

who have assisted me. Neither Compass Lexecon's compensation nor my compensation depends upon the outcome of this case.

## II. ASSIGNMENT

7. I was retained by Kellogg, Hansen, Todd, Figel & Frederick PLLC on behalf of Ripple Labs Inc. ("Ripple") to evaluate the Expert Report of [REDACTED] ("[REDACTED] Report") in this matter.<sup>1</sup>

8. I reserve the right to revise my opinions if new information becomes available.

## III. SUMMARY OF OPINIONS

9. Mr. [REDACTED] "analysis" suffers from the following fatal flaws:
- a. Mr. [REDACTED] provides no scientific basis for his causal conclusions regarding the effect of "Ripple's statements, actions, and product offerings" on the "perspective of a reasonable purchaser of XRP." Mr. [REDACTED] does not conduct an experiment, the gold standard for a causal conclusion. Neither does he conduct any other quantitative empirical analysis, such as a survey or analysis of data accumulated in the regular course of business, or qualitative empirical analysis such as focus groups. At best, his analysis can be viewed as a highly unreliable survey of a single respondent – himself.
  - b. Mr. [REDACTED] does not evaluate whether and to what degree XRP purchasers were exposed to Ripple's statements that he "review[s] and analy[zes]." A proper analysis of the impact of such statements on potential purchasers would include such an evaluation.

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<sup>1</sup> Expert Report of [REDACTED], October 4, 2021, *U.S. Securities and Exchange Commission v. Ripple Labs, Inc., Bradley Garlinghouse, and Christian A. Larson*, United States District Court, Southern District of New York.

- c. Mr. [REDACTED] “analysis” does not allow him to separate the supposed impact of Ripple’s conduct on the purchaser’s “perspective” from other potential influences, such as preexisting beliefs or general principles of economics.
- d. Mr. [REDACTED] does not explain how he selected Ripple’s statements that he “review[s] and analy[zes].”
- e. Mr. [REDACTED] does not offer any market segmentation or similar analysis that would allow him to establish that the different types of XRP purchasers he describes (investment-oriented and cross-border-transfer-oriented) actually exist, or that they are the only types of XRP purchasers that exist.
- f. Mr. [REDACTED] does not appear to possess the qualifications or experience needed to address certain aspects of the “perspective of a reasonable purchaser” or the effect of Ripple’s “statements, actions, and product offerings” on those aspects of the purchaser’s perspective, such as purchasers’ perceptions of Ripple’s at-issue statements.

#### **IV. BACKGROUND**

10. According to the operative complaint in this matter, Ripple (f/k/a Open Coin, Inc.) “is a Delaware corporation founded in September 2012, with its principal place of business in San Francisco, California, and an office in Manhattan.”<sup>2</sup> Ripple characterizes itself as “a San Francisco-based, privately-held payments technology company that uses blockchain innovation (including XRP) to allow money to be sent around the world instantly, reliably, and more

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<sup>2</sup> First Amended Complaint, *Securities and Exchange Commission v. Ripple Labs, Inc., Bradley Garlinghouse, and Christian A. Larsen*, 20 Civ. 10832 (AT), ECF Case, United States District Court, Southern District of New York, February 18, 2021 (“Complaint”), ¶16.

cheaply than traditional avenues of money transmission.”<sup>3</sup> The Securities and Exchange Commission (“SEC”) alleges that Ripple has sold or distributed significant quantities of XRP, the digital asset at issue in this case.<sup>4</sup>

11. The SEC claims that XRP is an “investment contract” and thus a security.<sup>5</sup> According to the SEC, “[i]nvestment contracts are instruments through which a person invests money in a common enterprise and reasonably expects profits or returns derived from the entrepreneurial or managerial efforts of others.”<sup>6</sup> The SEC claims that those “who purchased XRP . . . invested into a common enterprise with other XRP purchasers, as well as with Ripple,” that the “common interest” was “in XRP’s price increasing,” and that Ripple “led investors to reasonably expect that they could reap a profit from their investment into XRP, derived from Ripple’s and its agents’ efforts into their common enterprise.”<sup>7</sup> According to the SEC, XRP has “[n]o significant [n]on-[i]nvestment [u]se.”<sup>8</sup> In particular, the SEC does not believe that XRP’s use in cross-border payments, such as via Ripple’s On-Demand Liquidity (“ODL”) product, is a “use” of XRP.<sup>9</sup>

12. The SEC claims that Ripple sold XRP without filing a security registration statement, and therefore “never provided investors with the material information that every year hundreds of

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<sup>3</sup> Answer of Defendant Ripple Labs, Inc. to Plaintiff’s First Amended Complaint, *Securities and Exchange Commission v. Ripple Labs, Inc., Bradley Garlinghouse, and Christian A. Larsen*, 20-cv-10832 (AT), United States District Court, Southern District of New York, March 4, 2021 (“Ripple’s Answer”), ¶6, footnotes omitted.

<sup>4</sup> Complaint, ¶1; Ripple’s Answer, ¶¶1, 7. According to the SEC, “[f]rom at least 2013 through the present,” Ripple “sold over 14.6 billion units” of XRP. Complaint, ¶1.

<sup>5</sup> Complaint, ¶3.

<sup>6</sup> Complaint, ¶31.

<sup>7</sup> Complaint, ¶¶290, 302, 315.

<sup>8</sup> Complaint, Section V.

<sup>9</sup> Complaint, ¶131, Section V.A.

other issuers include in such statements.”<sup>10</sup> Thus, according to the SEC, Ripple engaged in an “illegal securities offering from 2013 to the present.”<sup>11</sup>

13. Ripple’s position is that XRP is not a security and that it “performs a number of functions that are distinct from the functions of ‘securities’ as the law has understood that term for decades”; for example, “XRP functions as a medium of exchange — a virtual currency used today in international and domestic transactions — moving value between jurisdictions and facilitating transactions.”<sup>12</sup> Among other things, Ripple contends that “holders of XRP cannot objectively rely on Ripple’s efforts” because “Ripple has no explicit or implicit obligation to any counterparty to expend efforts on their behalf,” “never explicitly or implicitly promised profits to any XRP holder,” and in any event is not in control of the XRP Ledger.<sup>13</sup>

## V. SUMMARY OF THE [REDACTED] REPORT

14. Mr. [REDACTED] was retained by the SEC “to independently analyze and render opinions on the perspective of a reasonable purchaser of XRP on Ripple’s statements, actions, and product offerings” in connection with “purchases of XRP [that] were made . . . throughout the period that Ripple offered XRP for sale from 2013 to the filing of the SEC’s Complaint on December 22, 2020.”<sup>14</sup> Mr. [REDACTED] states that the purchasers he considers “primarily include individuals, institutional investors, and financial services companies.”<sup>15</sup> Mr. Doody performs what he calls “review and analysis of Ripple’s public statements made throughout the Issuance Period,

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<sup>10</sup> Complaint, ¶2.

<sup>11</sup> Complaint, ¶3.

<sup>12</sup> Ripple’s Answer, ¶1.

<sup>13</sup> Ripple’s Answer, ¶¶7, 9, 10.

<sup>14</sup> [REDACTED] Report, ¶2.

<sup>15</sup> [REDACTED] Report, ¶2.



documents, and design decisions made by Ripple and/or its founders”<sup>16</sup> and concludes the following with respect to the “perspective of a reasonable purchaser” of XRP:

- a. “[A] reasonable purchaser would have had an expectation of future profit derived from the efforts of Ripple.”<sup>17</sup> In particular, Mr. Doody opines that Ripple’s actions “would create the hope that a purchaser could passively earn profits by owning XRP while Ripple took steps to increase the value of the coin.”<sup>18</sup>
- b. “[T]here are certain elements in Ripple’s and its founders’ design of XRP, the XRP Ledger, and a variety of software products that appealed more to a purchaser of XRP interested in making a profit than to financial institutions seeking to embrace Ripple’s stated vision of utilizing XRP as a bridge asset for cross-border asset transfers.”<sup>19</sup>

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<sup>16</sup> █████ Report, ¶7. In particular, Mr. █████ states that his “report focuses on what Ripple communicated publicly, including its assertions that usage of its products by financial institutions would ultimately lead to greater demand for XRP.” █████ Report, footnote 25.

<sup>17</sup> █████ Report, ¶8.

<sup>18</sup> █████ Report, ¶8. In the “Summary of Findings and Conclusions” section at the end of his report, Mr. █████ restates this conclusion as follows, “[o]ver the course of the Issuance Period a reasonable purchaser of XRP would have had an expectation of generating profit based on the efforts of Ripple and its management to accomplish the growth strategies that Ripple advertised to the public as being already achieved or planned for the future. . . . a reasonable purchaser would have closely considered many factors that were publicized by Ripple such as disclosed partnerships with financial institutions, the quality of Ripple’s management team, the target addressable market for Ripple’s products, and the availability of liquidity on trading platforms for XRP.” █████ Report, ¶89.

<sup>19</sup> █████ Report, ¶9. In the “Summary of Findings and Conclusions” section at the end of the report, Mr. █████ restates this conclusion as “[c]ertain aspects of the design characteristics of XRP and the promotional activity of Ripple did not appeal to a pure utility use case.” █████ Report, ¶90. The rest of Mr. █████ “Summary of Findings” section and “Summary of Findings and Conclusions” section appear to list the reasons for which he holds these opinions about the “perspective of a reasonable purchaser” (or supposed logic of how a “reasonable purchaser” would arrive at these two “perspectives”) rather than providing any incremental “perspectives.”

**VI. MR. ██████ OPINES ON THE “PERSPECTIVE OF A REASONABLE PURCHASER” RESULTING FROM RIPPLE’S “STATEMENTS, ACTIONS, AND PRODUCT OFFERINGS” WITHOUT EMPLOYING ANY RELIABLE METHODOLOGY**

15. Mr. ██████ opinions concern the effects that Ripple’s “statements, actions, and product offerings” supposedly had on the “perspectives” of reasonable purchasers of XRP. For example, he opines that actions by Ripple “would create” certain expectations for “a reasonable purchaser.”<sup>20</sup> Conclusions of this sort are considered “causal,” in the sense that he implies that Ripple’s “statements, actions, and product offerings” caused changes in the “perspective of a reasonable purchaser.”

16. There are scientifically grounded and reliable methodologies to assess whether causal relationships of this sort exist. Mr. ██████ did not employ any such methodology. As a result, Mr. ██████ has offered no legitimate and reliable basis for his opinions. Mr. ██████ also offers no explanation as to why he failed to use such a methodology, and from the materials Mr. ██████ provided, it does not appear that Mr. ██████ has any experience or qualification that would enable him to use such a methodology to the extent that his opinions discuss perceptions of reasonable purchasers. Appendix C to this report lists examples of Mr. ██████ unsupported causal propositions.

17. I describe the bases for my opinion below. Section VI.A describes reliable scientific methodologies that can be employed (but that Mr. ██████ failed to employ) to determine whether the sort of causal relationship that Mr. ██████ posits actually exists. Section VI.B describes in detail Mr. ██████ “review and analysis.” Section VI.C describes why the “methodology” on which Mr. ██████ effectively relied is invalid as a matter of well-established scientific principles.

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<sup>20</sup> ██████ Report, ¶8.

**A. The established, reliable, and supportable method for evaluating causal propositions is the experimental method**

18. The gold standard for testing a causal hypothesis is an experiment. For example, Babbie (2010) states that “[e]xperiments are the primary tool for studying causal relationships”<sup>21</sup> and Shadish, et al. (2002) also state that “experiments are well-suited to studying causal relationships. No other scientific method regularly matches the characteristics of causal relationships so well.”<sup>22</sup> The 2019 Sveriges Riksbank Prize in Economic Sciences in Memory of Alfred Nobel (commonly referred to as the “Nobel Prize” in economics) was awarded to Abhijit Banerjee, Esther Duflo, and Michael Kremer for their use of experiments in the field of developmental economics<sup>23</sup> and, similarly, the 2021 Nobel Prize in Economics was awarded to David Card, Joshua Angrist and Guido Imbens for their work related to experiments and quasi-experiments.<sup>24</sup> The Royal Swedish Academy noted that “[m]ost applied science is concerned

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<sup>21</sup> Babbie, Earl. *The Practice of Social Research*. Twelfth Edition. Wadsworth Cengage Learning, 2010 (“Babbie (2010)”), p. 249.

<sup>22</sup> Shadish, William R., Thomas D. Cook, and Donald T. Campbell. *Experimental and Quasi-Experimental Designs for Generalized Causal Inference*. Wadsworth Cengage Learning, 2002, pp. 7-9. Shadish, et al. (2002) further state “In many correlational studies, for example, it is impossible to know which of two variables came first, so defending a causal relationship between them is precarious. . . . The unique strength of experimentation is in describing the consequences attributable to deliberately varying a treatment.”

<sup>23</sup> The Royal Swedish Academy of Sciences. “The Prize in Economic Sciences 2019,” available at <https://www.nobelprize.org/uploads/2019/10/press-economicsciences2019-2.pdf>, p. 1.

<sup>24</sup> The Royal Swedish Academy of Sciences. “Scientific Background on the Sveriges Riksbank Prize in Economic Sciences in Memory of Alfred Nobel 2021 - Answering Causal Questions Using Observational Data,” available at <https://www.nobelprize.org/uploads/2021/10/advanced-economicsciencesprize2021.pdf> (“The Royal Swedish Academy of Sciences (2021)”), pp. 1-2. “This year’s Prize in Economic Sciences rewards three scholars: David Card of the University of California, Berkeley, Joshua Angrist of Massachusetts Institute of Technology, and Guido Imbens of Stanford University. The Laureates’ contributions are separate but complementary. . . . The combined contribution of the Laureates, however, is larger than the sum of the individual parts. Card’s studies from the early 1990s showcased the power of exploiting natural experiments to uncover causal effects in important domains. This early work thus played a crucial role in shifting the focus in empirical research using observational data towards relying on quasi-experimental variation to establish causal effects. The framework developed by Angrist and Imbens, in turn, significantly altered how researchers approach empirical questions using data generated from either natural experiments or randomized experiments with incomplete compliance to the assigned treatment. At the core, the LATE interpretation clarifies what can and cannot be learned from such experiments. Taken together, therefore, the Laureates’ contributions have played a central role in establishing the so-called design-based approach in economics. This approach – aimed at emulating a randomized experiment to answer a causal question using

with uncovering causal relationships,” and that in many fields, “randomized controlled trials (RCTs) are considered the gold standard for achieving this. . . . Randomized experiments can be used to answer a broad range of causal questions.”<sup>25</sup>

19. Some of the most commonly discussed experiments are clinical trials, also referred to as randomized controlled trials, where patients are randomly assigned to a treatment group that receives the tested treatment, or a control group that receives a previously established treatment or a placebo.<sup>26</sup> In these experiments, if the studied health outcome of the test group (e.g., blood pressure) is statistically significantly better than in the control group, the researchers conclude that the tested treatment is effective (or more effective than the pre-existing treatment that the control group received).<sup>27</sup> That is, the researchers use a test group and a control group to establish whether and how a change in stimulus (tested treatment vs. control treatment) affects outcomes (e.g., blood pressure). Principles of this sort can be applied to measure causation in other fields as well, including economics as discussed above. Experiments are also common in marketing and consumer behavior and can be used to test whether receiving certain information affects consumers’ views about a particular product.<sup>28</sup>

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observational data – has transformed applied work and improved researchers’ ability to answer causal questions of great importance for economic and social policy using observational data.”

<sup>25</sup> The Royal Swedish Academy of Sciences (2021), pp. 1, 8.

<sup>26</sup> “In the medical sciences . . . randomized experiments are often used for determining the effects of a treatment. For example, a drug and a placebo may be randomly given to patients and the health effects then compared between those receiving the drug and those given a placebo.” The Royal Swedish Academy of Sciences (2021), p. 7.

<sup>27</sup> “If we observe statistically significant differences among the groups after a comparative randomized experiment, we have good evidence that the treatments actually caused these differences.” Yates, Daniel, David Moore, and George McCabe. *The Practice of Statistics*. First Edition. W.H. Freeman, 1999 (“Yates, et al. (1999)”), p. 276.

<sup>28</sup> See, for example, Assael, Henry. *Consumer Behavior, A Strategic Approach*. Houghton Mifflin Company, 2004, pp. 18-19. “Researchers try to determine the effects of marketing stimuli such as alternative product characteristics, advertising themes, or price levels (the cause) on consumer responses (the effect). In trying to establish such cause-and-effect relationships, the researcher must try to control all factors except the marketing stimulus being tested so that consumer responses can be attributed to that stimulus. Frito-Lay ran experiments under controlled conditions and found it could reduce oil in its light chip line (the stimulus or cause) by one-third without a decrease in consumer taste ratings (the response or effect).”

20. Here, a proper experimental methodology to support Mr. [REDACTED] opinions – which Mr. [REDACTED] did not use – would test whether the particular information he points to (i.e., Ripple’s “statements, actions, and product offerings”) actually caused the effects he ascribes to that information (e.g., creating particular beliefs or expectations among reasonable purchasers of XRP). To do that, a well-designed experiment would compare outcomes (“perspective of a reasonable purchaser”) in the actual world in which Ripple engaged in the at-issue “statements, actions, and product offerings” with outcomes in the but-for world in which the at-issue “statements, actions, and product offerings” were not present. This experiment would directly compare the “perspective of a reasonable purchaser” in the actual and the but-for worlds.

21. Academics and experts in litigation conduct similar experiments and experiment-like studies using a variety of methods involving either data accumulated in the regular course of business or by conducting new “primary data” studies.<sup>29</sup>

22. Because one of the key outcomes of interest here is the beliefs held by potential XRP purchasers (e.g., whether or not the potential XRP purchasers had “an expectation of future profit”), the most direct way of measuring that outcome is through a survey of actual and potential XRP purchasers. For example, Jacoby (2013) notes surveys are “the methodological tool most often used by social scientists to probe states of mind,” and are “routinely used” in litigation contexts for that reason.<sup>30</sup>

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<sup>29</sup> See, for example, Diamond, Shari, S. “Reference Guide on Survey Research.” *Reference Manual on Scientific Evidence*. Third Edition. Federal Judicial Center, 2011, pp. 359-423 (“Diamond (2011)”), at pp. 397-401. Jacoby (2013) noted that in “[a] study of trademark cases (including applications for interim injunctions) that went to final judgment reported during a 10-year span from the mid-1990s through the mid-2000s revealed more cases where survey evidence was submitted (57.4 percent) than where surveys were not submitted.” Jacoby, Jacob, and Lynda Zadra-Symes. “Legal Issues That Can Be Examined via Surveys.” *Trademark Surveys: Volume 1: Designing, Implementing, and Evaluating Surveys*. Jacob Jacoby. ABA Book Publishing, 2013 (“Jacoby (2013)”), p. 7.

<sup>30</sup> Jacoby (2013), p. 6. Diamond (2011) explains that surveys “are used to describe or enumerate the beliefs, attitudes, or behavior of persons or other social units. Surveys typically are offered in legal proceedings to establish or refute claims about the characteristics of those individuals or social units (e.g., whether consumers are likely to be

23. There are multiple types of surveys that can be conducted. A traditional survey may ask respondents for information without trying to measure any causal effects. For example, a survey could simply ask respondents which political candidate they intend to vote for, or whether they have ever purchased a particular type of product, or how they understand a particular advertisement. However, as Diamond (2011) explains, “[s]urveys that merely record consumer impressions have a limited ability to answer questions about the origins of those impressions. The difficulty is that the consumer’s response to any question on the survey may be the result of information or misinformation from sources other than the trademark the respondent is being shown or the commercial he or she has just watched.”<sup>31</sup> Surveys of this sort can be appropriate when the goal is to learn about prevalent opinions or preferences (such as which candidate is likely to win an election) rather than causal relationships (such as how new information may cause people to change their beliefs or preferences). When the purpose is to investigate such a causal relationship, a survey in the experimental form would be carried out. Diamond (2011), for example, states that “[m]any surveys are designed not simply to describe attitudes or beliefs or reported behaviors, but to determine the source of those attitudes or beliefs or behaviors. That is, the purpose of the survey is to test a causal proposition.”<sup>32</sup> Because Mr. [REDACTED] attempts to describe a causal relationship (i.e., whether potential XRP purchasers’ “perspectives” are caused by Ripple’s at-issue “statements, actions, and product offerings”), an experimental form survey

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misled by the claims contained in an allegedly deceptive advertisement; which qualities purchasers focus on in making decisions about buying new computer systems).” Diamond (2011), at p. 361.

<sup>31</sup> Diamond (2011), at p. 397.

<sup>32</sup> Diamond (2011) presents an example of how such a survey works: “For example, how does a trademark or the content of a commercial affect respondents’ perceptions or understanding of a product or commercial? Thus, the question is not merely whether consumers hold inaccurate beliefs about Product A, but whether exposure to the commercial misleads the consumer into thinking that Product A is a superior pain reliever. Yet if consumers already believe, before viewing the commercial, that Product A is a superior pain reliever, a survey that simply records consumers’ impressions after they view the commercial may reflect those preexisting beliefs rather than impressions produced by the commercial.” Diamond (2011), at pp. 397-399.

would have been the appropriate methodology to use here. Mr. [REDACTED] did not conduct such a survey.

24. A well-designed experimental-form survey would simulate the actual and the but-for world for a sample of “reasonable purchasers,” half of which would be randomly assigned to the “actual world” (test group) and the other half to the “but-for world” (control group). Diamond (2011) explains:

By adding one or more appropriate control groups, the survey expert can test directly the influence of the stimulus. In the simplest version of such a survey experiment, respondents are assigned randomly to one of two conditions. For example, respondents assigned to the experimental condition view an allegedly deceptive commercial, and respondents assigned to the control condition either view a commercial that does not contain the allegedly deceptive material or do not view any commercial. Respondents in both the experimental and control groups answer the same set of questions about the allegedly deceptive message. The effect of the commercial’s allegedly deceptive message is evaluated by comparing the responses made by the experimental group members with those of the control group members. If 40% of the respondents in the experimental group responded indicating that they received the deceptive message (e.g., the advertised product has fewer calories than its competitor), whereas only 8% of the respondents in the control group gave that response, the difference between 40% and 8% (within the limits of sampling error) can be attributed only to the allegedly deceptive message. Without the control group, it is not possible to determine how much of the 40% is attributable to respondents’ preexisting beliefs or other background noise (e.g., respondents who misunderstand the question or misstate their responses).<sup>33</sup>

25. Similarly, Yates, et al. (1999) state that a great advantage of experiments is that “they can produce data that give good evidence for a cause-and-effect relationship between the explanatory

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<sup>33</sup> Diamond (2011), at p. 398.

and response variables. We know that in general, a strong association does not imply causation.

A strong association in data from a well-designed experiment does imply causation.”<sup>34</sup>

26. In this case, a well-designed experimental survey would involve the following steps:<sup>35</sup>

- a. The survey should be designed, conducted, and analyzed by an expert who is “[a]ppropriately [s]killed and [e]xperienced,” which Mr. [REDACTED] is not.<sup>36</sup>
- b. Actual and potential purchasers of XRP (the target population) would be recruited to participate in a survey. Those could be drawn, for example, from the three types of purchasers that Mr. [REDACTED] highlighted, “individuals, institutional investors, and financial services companies.”
- c. The “[i]dentification of the proper target population or universe is recognized uniformly as a key element in the development of a survey.”<sup>37</sup>

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<sup>34</sup> Yates, et al. (1999), p. 275. Yates, et al. (1999) describe the “logic behind a randomized comparative design” as: “• Randomization produces groups of experimental units that should be similar in all respects before the treatments are applied. • Comparative design ensures that influences other than the experimental treatments operate equally on all groups. • Therefore, differences in the response variable must be due to the effects of the treatments. That is, the treatments not only are associated with the observed differences in the response but must actually cause them.”

<sup>35</sup> A survey would be preceded by exploratory research, which may include other “primary data” collection, and a pretest. The exploratory research and the design stage would include numerous decisions such as which at-issue statements to test, and how to instrumentalize the targeted population.

<sup>36</sup> Diamond (2011), at p. 375. “Experts prepared to design, conduct, and analyze a survey generally should have graduate training in psychology (especially social, cognitive, or consumer psychology), sociology, political science, marketing, communication sciences, statistics, or a related discipline; that training should include courses in survey research methods, sampling, measurement, interviewing, and statistics. In some cases, professional experience in teaching or conducting and publishing survey research may provide the requisite background. In all cases, the expert must demonstrate an understanding of foundational, current, and best practices in survey methodology, including sampling, instrument design (questionnaire and interview construction), and statistical analysis. Publication in peer-reviewed journals, authored books, fellowship status in professional organizations, faculty appointments, consulting experience, research grants, and membership on scientific advisory panels for government agencies or private foundations are indications of a professional’s area and level of expertise,” (footnotes omitted). While Mr. [REDACTED] may have some training in statistics, he does not appear to have any training (e.g., in marketing or psychology) that would allow him to ask questions in an unbiased fashion.

<sup>37</sup> Diamond (2011), at p. 376, footnote 76.

Diamond (2011) further states that “One of the first steps in designing a survey or in deciding whether an existing survey is relevant is to identify the target population (or universe). The target population consists of all elements (i.e., individuals or other units) whose characteristics or perceptions the survey is intended to represent. Thus, in trademark litigation, the relevant population in some disputes may include all prospective and past purchasers of the



- d. Respondents who qualify would be randomly assigned to a test group or a control group.
- e. Test group respondents would be exposed to a set of tested statements and actions by Ripple: specifically, the “statements, actions, and product offerings” that Mr. [REDACTED] describes in his report. These could be presented in a form of a vignette accompanied by news articles, video interviews, or other stimuli approximating the marketplace realities.<sup>38</sup> The names “Ripple” and “XRP” could be anonymized to control for prior knowledge.
- f. The control group would be exposed to the same procedure, except that the at-issue elements of the statements, actions, and product offerings would be replaced

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plaintiff's goods or services and all prospective and past purchasers of the defendant's goods or services.... The definition of the relevant population is crucial because there may be systematic differences in the responses of members of the population and nonmembers. For example, consumers who are prospective purchasers may know more about the product category than consumers who are not considering making a purchase. The universe must be defined carefully. For example, a commercial for a toy or breakfast cereal may be aimed at children, who in turn influence their parents' purchases. If a survey assessing the commercial's tendency to mislead were conducted based on a sample from the target population of prospective and actual adult purchasers, it would exclude a crucial relevant population. The appropriate population in this instance would include children as well as parents.” Diamond (2011), at pp. 376-377.

Jacoby (2013) also notes the importance of selecting the correct survey universe in the context of trademark cases: “The rationale relied upon for identifying the relevant buyer class (the ‘survey universe,’ see chapter 5) is important, as courts may find the universe of relevant buyers too broad or too narrow. ... Using the wrong universe can result in the survey being given little weight or even deemed inadmissible.” Jacoby (2013), pp. 11-12.

<sup>38</sup> Yates, et al. (1999) state that the “most serious potential weakness of experiments is lack of realism. The subjects or treatments or setting of an experiment may not realistically duplicate the conditions we really want to study.... Lack of realism can limit our ability to apply the conclusions of an experiment to the settings of greatest interest. Most experiments want to generalize their conclusions to some setting wider than that of the actual experiment. Statistical analysis of the original experiment cannot tell us how far the results will generalize... A convincing case that an experiment is sufficiently realistic to produce useful information is based not on statistics but on the experimenter's knowledge of the subject matter of the experiment. The attention to detail required to avoid hidden bias also rests on subject matter knowledge. Good experiments combine statistical principles with understanding of a specific field of study.” Yates, et al. (1999), pp. 278-279.

by “placebo” versions that lack the content that is hypothesized to have an effect on reasonable purchasers’ “perspective.”<sup>39</sup>

- g. “In designing a survey-experiment, the expert should select a stimulus for the control group that shares as many characteristics with the experimental stimulus as possible, with the key exception of the characteristic whose influence is being assessed.”<sup>40</sup>
- h. Both groups will then be evaluated on a “dependent measure” which would aim at gaining the unbiased “perspective of a reasonable purchaser.” For example, respondents could be asked in open-ended and closed-ended formats about their perception of the digital asset described to them, whether they would expect its price to grow because of the efforts of the company discussed in the study, whether they would expect the digital asset to be usable in transactions, including cross-border transactions, and what their own intentions would be with respect to

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<sup>39</sup> For example, Mr. [REDACTED] claims that in a certain passage in an interview with Bloomberg Technology, Ripple’s CEO Brad Garlinghouse contributed to certain underrating of XRP potential purchasers about XRP. [REDACTED] Report, ¶¶25-26.

The passage called out by Mr. [REDACTED] reads, “[w]hen Ripple uses XRP we’re solving a payments problem. I believe that the more utility you draw, the more demand you’re going to drive. And for most of these digital assets you have fixed supply. If you have fixed supply and increasing demand it’s going to drive price up.” Mr. [REDACTED] believes that because of this statement, “[p]otential purchasers of XRP would have understood [that] XRP, as designed, provided a mechanism for passive XRP owners to benefit financially from Ripple’s success as a provider of financial service products built on the XRP Ledger, as a developer of the XRP ecosystem, and as a driver of demand for XRP” (footnote omitted).

In the experiment, respondents in the test group could be exposed to the interview the way it occurred, while the control group respondents could be exposed to the same interview but where the passage identified by Mr. [REDACTED] would be removed or replaced by a “placebo.”

In addition to testing the causal proposition, such an approach would account for whether potential purchasers who viewed the interview would even pay attention to the passage highlighted by Mr. [REDACTED]. Additional empirical research would be needed to further investigate what percentage of the potential or actual XRP purchasers was even exposed to the interview. Mr. [REDACTED] addressed neither of these topics.

<sup>40</sup> Diamond (2011), at p. 399.

the asset discussed (e.g., whether they would consider purchasing it, and what they would potentially do with it afterwards).

- i. After data are collected, statistical analysis would be carried out to assess whether the perspectives of the test and control groups differ. If the perspectives are *not* statistically significantly different, one can conclude that the perspective of a reasonable purchaser is *not* caused by the statements and actions tested in the experiment (i.e., those elements that differ in the stimuli presented to the test and control group).<sup>41</sup> (Strictly speaking, when a researcher finds no statistically significant difference in the outcomes between the test and control groups, the researcher “fails to reject the null hypothesis” of no causal relationship.)
- j. The study would also allow a researcher to assess whether different groups respond to inputs differently. In particular, Mr. ██████ opines that Ripple’s actions and the design of XRP and the XRP Ledger “appealed more to a purchaser of XRP interested in making a profit than to financial institutions seeking to . . . [use] XRP as a bridge asset for cross-border asset transfers.”<sup>42</sup> Differences in effects observed among various subsamples in the study (e.g., individual investors vs. representatives of financial institutions) can be tested. Alternatively, data can be examined for whether participants respond in a way that makes them naturally fall into two distinct groups of “investors for profit” and “cross-border transfer users,” and whether the share of “investors for profit” is statistically significantly different in the test group than in the control group. Mr. ██████ makes no effort to

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<sup>41</sup> “If we observe statistically significant differences among the groups after a comparative randomized experiment, we have good evidence that the treatments actually caused these differences.” Yates, et al. (1999), p. 276.

<sup>42</sup> ██████ Report, ¶9.

establish that the two groups of XRP purchasers he purports exist actually exist, or to measure their relative sizes. He appears to assume that “[i]nvestment-[o]riented” purchasers are prevalent.<sup>43</sup>

27. Mr. [REDACTED] does not appear to have any training or experience in designing and performing such a study. In any event, he did not carry it out in connection with offering his opinion in this case.

28. Other, non-experimental options are also available to evaluate perceptions and expected behavior, although they are less effective in isolating causal effects than the gold-standard methodology of conducting an experiment. For example, someone interested in how reasonable purchasers understand certain information could conduct a simple survey, without a control group, or carry out a qualitative study such as focus groups or qualitative phone interviews. While these methods would not allow a researcher to test a particular causal hypothesis, they are used to develop such hypotheses for subsequent experimental testing.<sup>44</sup>

29. Mr. [REDACTED] does not appear to have any training or experience in designing and performing such a study, and he did not carry out such a study in connection with offering his opinion in this case.

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<sup>43</sup> For example, in his Section 7 titled “Ripple Communications and Promotional Statements,” Mr. [REDACTED] includes Subsection 7.1, titled “Promotional Factors Considered by an Investment-Oriented Purchaser.” However, he does not include a parallel subsection that would address promotional factors presumably considered by the other group of XRP purchasers that he claims exists, “[p]urchasers of XRP for cross-border payments.” [REDACTED] Report, ¶86.

<sup>44</sup> Assael, Henry. *Consumer Behavior, A Strategic Approach*. Houghton Mifflin Company, 2004, p. 17. “Qualitative research is designed to learn more about consumers’ underlying motives by asking them questions in an unstructured manner. It allows researchers to form hypotheses regarding consumer actions and to better define research areas so as to know the kinds of questions to ask in more structured surveys or experiments. The two most frequently used qualitative approaches are focus groups interviews and projective techniques.”

Hague, et al. (2016) state that focus groups can be used to “identify and explore behaviour, attitudes and processes” and can be used “to enhance alternative means of data collection. Typically this would be as a precursor to a quantitative stage – determining the issues to be covered in the structured interviewing and giving insights into the problems or opportunities that are being researched.” Hague et al. *Market Research in Practice*. Kindle Edition, Third Edition. Kogan Page, 2016, p. 69.

30. It is also possible to conduct quasi-experiments using preexisting data. In fact, the 2021 Nobel Laureates in Economics received the Nobel Prize for their use of quasi-experimental designs and for their development of a “general [causal inference] framework applicable to both quasi-experimental and experimental work.”<sup>45</sup> In the current case, someone interested in testing whether the “statements, actions, and product offerings” at issue in Mr. [REDACTED] report affected the “perspective” of “reasonable purchasers” could compare actual historical trading data for XRP (the real world) against that of other digital assets, which would serve as a proxy for the but-for world assuming that they are not affected by Ripple’s “statements, actions, and product offerings.” The critical element of such a study on preexisting data would be “controlling” for all other differences that are not related to the at-issue conduct. Shadish, et al. (2002) discuss that because “quasi-experimental control groups may differ from the treatment condition in many systematic (non-random) ways other than the presence of the treatment,” researchers have to worry about ruling out alternative explanations for the observed effect (e.g., by controlling for all other differences) “in order to get a more valid estimate of the treatment effect.”<sup>46</sup>

31. It is not clear to me whether Mr. [REDACTED] possesses the qualifications to conduct such a study on preexisting data, but he certainly did not carry it out.

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<sup>45</sup> The Royal Swedish Academy of Sciences (2021), pp. 4, 27-28.

<sup>46</sup> Shadish, William R., Thomas D. Cook, and Donald T. Campbell. *Experimental and Quasi-Experimental Designs for Generalized Causal Inference*. Wadsworth Cengage Learning, 2002, p. 14. Specifically, “[i]n quasi-experiments, the cause is manipulable and occurs before the effect is measured. However, quasi-experimental design features usually create less compelling support for counterfactual inferences. For example, quasi-experimental control groups may differ from the treatment condition in many systematic (non-random) ways other than the presence of the treatment. Many of these ways could be alternative explanations for the observed effect, and so researchers have to worry about ruling them out in order to get a more valid estimate of the treatment effect.”

See also Meyer, Bruce D. “Natural and Quasi-Experiments in Economics.” *Journal of Business & Economic Statistics* 13(2): 151-161, April 1995, at pp. 153-156.

- B. Mr. [REDACTED] does not evaluate whether and to what degree XRP purchasers were exposed to the at-issue communications and does not attempt to empirically evaluate the causal effect, if any, of Ripple’s public communications on perceptions or purchase decisions of actual or potential purchasers of XRP**

32. Mr. [REDACTED] conducts his “analysis” in three sections of his report, 5, 6, and 7.<sup>47</sup> The three sections have a similar structure, where initial subsections lay out Ripple’s alleged conduct and theoretical discussions, while a final subsection jumps to conclusions about the “perspective of [a] reasonable purchaser” without offering any empirical support for such conclusions (some conclusions about “perspective” are also weaved into the initial subsections).

33. As a preliminary matter, I note that Mr. [REDACTED] does not distinguish between conclusions he makes on the basis of basic economic principles and those he makes based on Ripple’s communications. In his logic, it is impossible to distinguish where potential or actual purchasers would have arrived at a particular perception or purchase decision based on basic economic principles regardless of anything Ripple said or did (e.g., such as principles of demand and supply) or whether Ripple’s public communication or other at-issue conduct contributed to those perceptions and purchase decisions. The experimental method discussed above would allow an expert to distinguish between these potentially confounding influences. Such distinction is generally impossible when an “expert” does not apply the experimental method, as is the case with Mr. [REDACTED] “analysis.”

34. I address each of the three “analysis” sections of the [REDACTED] Report in the corresponding subsections below.<sup>48</sup>

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<sup>47</sup> Other sections include introduction, summaries of findings and conclusions, background, Ripple platform overview, and a note on right to supplement.

<sup>48</sup> I discuss in more detail section 5 of the [REDACTED] Report. The issues with sections 6 and 7 are largely similar.

a. **██████ Report Section 5 “Features of XRP Coin Economics and Suitability as a Bridge Asset”**

35. In Section 5.1 of his report, Mr. ██████ explains that “[a]ll else equal, for any digital asset with a fixed-supply cap, increased demand for the coin increases the price of the coin. This is a basic economic result of supply and demand.”<sup>49</sup> Then he mentions that “Ripple directly and publicly made the case for this relationship between increased demand for XRP and the future price of XRP” and offers as an example Mr. Garlinghouse’s interview with Bloomberg Technology in 2017.<sup>50</sup> Mr. ██████ then concludes: “Potential purchasers of XRP would have understood the simple economics behind the message being promoted by Ripple on this subject: XRP, as designed, provided a mechanism for passive XRP owners to benefit financially from Ripple’s success as a provider of financial service products built on the XRP Ledger, as a developer of the XRP ecosystem, and as a driver of demand for XRP.”<sup>51</sup>

36. The critical flaw of this “analysis” is that Mr. ██████ does not investigate whether any XRP purchasers were exposed to the interview, paid attention to it, understood it in the way consistent with Mr. ██████ interpretation (i.e., did XRP purchasers believe that increased demand for XRP would increase its price, and if so, was that belief due to the particular statement in the interview or due to some other source), or were impacted by it in their purchase decisions (e.g., purchased XRP due to the particular statement in the interview). Nor does he acknowledge that XRP had been offered for several years (since 2013) before this interview took place.

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<sup>49</sup> ██████ Report, ¶23.

<sup>50</sup> ██████ Report, ¶25.

<sup>51</sup> ██████ Report, ¶26, footnote omitted.

37. Similarly, in section 5.2 of his report, Mr. [REDACTED] describes advantages of “stablecoin” over variable-price assets (e.g., XRP) for cross-border currency transfers.<sup>52</sup> In this theoretical discussion, he states that Ripple’s CTO mentioned in 2016 one such supposed “shortcoming” of XRP “in a post on XRP Chat.”<sup>53</sup> Mr. [REDACTED] then concludes that the relationship between the success of the platform and price of the coin “is fantastic for investment-oriented purchasers of XRP, but not for the purchasers who are exclusively interested in the utility use of the cross-border payment product.”<sup>54</sup>

38. This section is flawed for similar reasons as section 5.1. Mr. [REDACTED] does not investigate whether it is the general theoretical logic that he offers that would lead to the supposed perspective of the two types of potential XRP purchasers he identifies, rather than the CTO’s statement, which only touches upon one of two supposed “shortcomings.” Mr. [REDACTED] does not investigate whether any prospective purchasers were exposed to the CTO’s statement, paid attention to it, understood it in the way consistent with Mr. [REDACTED] interpretation (i.e., do XRP purchasers believe that XRP is a good investment but not a good instrument for cross-border transfers, and if so, did that belief come about due to the CTO’s chat statement), or were impacted by it in their purchase or post-purchase decisions (i.e., purchased XRP as investment and not for cross-border transfers because of the CTO’s chat statement). Mr. [REDACTED] also does not acknowledge that XRP had been offered for several years before the CTO’s statement. Neither does he offer any market segmentation or similar analysis to allow him to establish that the two types of purchasers he describes are actually distinct or that there are only two types of purchasers.

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<sup>52</sup> [REDACTED] Report, ¶¶27-29.

<sup>53</sup> [REDACTED] Report, ¶28.

<sup>54</sup> [REDACTED] Report, ¶31.



39. In section 5.3 of his report, Mr. [REDACTED] summarizes the “Perspective of a Reasonable Purchaser with Respect to XRP’s Fixed-Supply Model,” again splitting the purchasers into “investment-oriented purchasers of XRP” and “purchasers who are exclusively interested in the utility use of the cross-border payment product.” Again, he does not explain whether these two types of purchasers were exposed or paid attention to the specific Ripple statements, whether the perspectives (perceptions and purchase behaviors) of these two types of potential purchasers were affected by those statements or by general economic logic, why these two types of customers represent a relevant market segmentation, and whether there is any basis to say these two are the only types of potential purchasers that should be considered.

***b. [REDACTED] Report Section 6 “XRP Sale and Escrow Mechanics”***

40. In sections 6.1-6.5 of his report, Mr. [REDACTED] discusses “XRP Sale and Escrow Mechanics,” again intermingling theoretical logic, statements made by Ripple, and actions taken by Ripple.<sup>55</sup> This intermingling is flawed for the reasons I explain above. Then, in section 6.6, Mr. [REDACTED] describes the supposed “Perspective of a Reasonable Purchaser with Regards to Ripple’s XRP Sales and Escrow,” again discussing separately the perspective of “a potential investment-oriented purchaser of XRP” and “a reasonable purchaser of XRP that is exclusively considering the utility use of the coin.”<sup>56</sup> Again, he does not explain why his segmentation into these two types of purchasers is valid, or whether these two types of purchasers were exposed or

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<sup>55</sup> [REDACTED] Report, ¶¶32-47. Occasionally, Mr. [REDACTED] would interject these descriptions with what appears to be his take on purchaser “perspective.” For example, he states that various aspects of institutional purchasing of XRP, “repeatedly communicated by Ripple in the XRP Markets Reports,” “would appeal to an individual purchaser with a long-term investment mindset.” [REDACTED] Report, ¶37. He does not identify any basis for distinguishing between subsets of potential XRP purchasers (for example, his “individual purchaser with a long-term investment mindset” versus an individual purchaser with a short-term investment mindset, or an individual purchaser with no investment mindset, or an entity purchaser) but also makes no attempt to argue that his conclusions hold as to all subsets of potential XRP purchasers.

<sup>56</sup> [REDACTED] Report, ¶¶48-49.

paid attention to the specific Ripple statements, whether they interpreted the statements the same way as Mr. [REDACTED], or whether the perspectives (perceptions and purchase behaviors) of these two types of potential purchasers are affected by those statements or by general economic logic. Each of these omissions is a critical flaw in Mr. Doody's reasoning.

**c. [REDACTED] Report Section 7 "Ripple Communications and Promotional Statements"**

41. In Sections 7.2 to 7.7 of his report, Mr. [REDACTED] discusses various Ripple communications.<sup>57</sup> Then, in Section 7.8, he outlines the "Perspective of a Reasonable Purchaser with Respect to Ripple Communications," again splitting the purchasers without explanation or support for his categorization of those purchasers into "Investment-oriented purchasers" of XRP and "Purchasers of XRP for cross-border payments." For example, Mr. [REDACTED] states, without any empirical evidence, that "Ripple's extensive public comments and reports about these topics likely served to inform and persuade investment-oriented purchasers about the potential reward of purchasing XRP for the purpose of generating a profit. Indeed, the use of terms such as 'traction,' 'market fit,' 'total addressable market,' and even 'investors' when describing Ripple's

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<sup>57</sup> These sections also occasionally include comments about purchasers' "perspective," such as "Such communications [by Ripple executives, linking the company's efforts to increases in the price of XRP] would have appealed to potential purchasers who were interested in XRP as an investment." [REDACTED] Report, ¶53. Similarly, Mr. [REDACTED] occasionally infuses these sections with theoretical logic like this statement: "[o]ne of the key aspects for evaluating whether a company or project has a viable business model is whether it has 'traction', i.e., to what extent is there is 'product/market-fit' where actual customers have signed up to use the company's product or service such as to demonstrate that it solves a real problem." [REDACTED] Report, ¶61. In another such instance, Mr. [REDACTED] explains, "[w]hen investment-oriented purchasers evaluate a company or project as a potential investment, they want to understand how the funds collected will be deployed by management to grow the venture." [REDACTED] Report, ¶76. Some statements appear to be somewhere in between theoretical logic and conclusions on purchaser "perspective." For example, Mr. [REDACTED] states, "Ripple's ongoing replacement of released XRP into new escrows reinforced the positive effect of this reduction in circulating supply by showing a commitment to keeping those coins away from trading platforms for even longer." [REDACTED] Report, ¶43. Another example is the statement that "Although the buyback activity would not have mattered to purely utility-oriented purchasers of XRP, buybacks are very important signals for investment-oriented purchasers. Open market purchases, and the public communications about those purchases, alter the potential risk and reward of an investment in XRP by increasing buying pressure on the coin and by reducing the probability and severity of a possible crash in the price of XRP. Like the escrow accounts described in Section 6.3, the buyback activities executed by Ripple would also have the effect of reducing the effective float of the coin." [REDACTED] Report, ¶47.

progress and growth potential are words typically understood by market participants to mean that they should view buying XRP as a potentially profitable investment.”<sup>58</sup> He concludes, “[i]t is my opinion from carefully following the digital asset space that many of Ripple’s public communications conveyed to reasonable purchasers of XRP an expectation of future profit derived from the efforts of Ripple.”<sup>59</sup>

42. Mr. █████ supposedly supports this conclusion in part by section 7.1, where he describes which factors “a reasonable investment-oriented purchaser of XRP would consider” based on his own “experience as an investor in digital assets as well as [his] close observation of the digital asset space.”<sup>60</sup> Thus, as with the other sections of his report, the entirety of section 7 does not include any empirical analysis (e.g., survey) that would actually evaluate whether these are the appropriate segments of purchasers, whether purchasers of either type were exposed to or paid attention to the Ripple statements, whether they interpreted them the same way as Mr. █████, or whether the statements had any effect on their perspectives. And, as with the other sections, he offers no support for distinguishing between the two purchaser types he chose to focus on, and no support for assuming that no other types of purchasers exist. He offers no empirical support for his opinions in this section; at most, Mr. █████ offers the perspective of a single such purchaser or potential purchaser, Mr. █████ himself, which is akin to conducting a survey of a single person, an egregious methodological error (discussed in greater detail in the next section).<sup>61</sup>

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<sup>58</sup> █████ Report, ¶85.

<sup>59</sup> █████ Report, ¶87.

<sup>60</sup> █████ Report, ¶50.

<sup>61</sup> It is not clear if his perspective is solely of an “investment-oriented” purchasers or also a cross-border payment purchaser.

*d. Other Flaws in Mr. ██████ “Analysis”*

43. In addition to the flaws discussed above, Mr. ██████ does not explain how he made the selection of Ripple’s statements that he “review[s] and analy[zes]” or how he identified the passages that he considers likely to have affected the perspectives of actual or potential XRP purchasers. I note that the statements Mr. ██████ discusses are not the same as the ones that the SEC alleged formed the basis of XRP purchasers’ beliefs about Ripple’s conduct. For example, the complaint identifies a statement made by Mr. Garlinghouse in 2018 in an interview with Bloomberg News as one that was likely to create expectations among XRP purchasers, while Mr. ██████ does not address it:

“[W]e have found that part of the reason why XRP has performed well, is because people realize. . . if we work with the system to solve this problem and we can solve that problem at scale, a problem measured in the trillions of dollars, then there is a lot of opportunity to create value in XRP.” Garlinghouse also speculated in the December 14, 2017 interview that, if a company created “utility” for a digital asset like XRP, “then there will be demand for the tokens, [and] the price of the tokens will go up.”<sup>62</sup>

Similarly, Mr. Doody identifies Mr. Garlinghouse’s interview with Bloomberg Technology in 2017, discussed above, as one that was likely to create expectations among XRP purchasers, while the complaint does not address it:

When Ripple uses XRP we’re solving a payments problem. I believe that the more utility you draw, the more demand you’re going to drive. And for most of these digital assets you have fixed supply. If you have fixed supply and increasing demand it’s going to drive price up.<sup>63</sup>

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<sup>62</sup> Complaint, ¶348. This statement is mentioned as part of Section IV.C “Ripple Led Investors to Reasonably Expect a Profit from Their Investment Derived from Defendants’ Efforts.”

<sup>63</sup> ██████ Report, ¶25.

44. Mr. [REDACTED] also highlights certain terms Ripple used, such as “investor”<sup>64</sup> to imply that Ripple itself treated purchasers of XRP as investors (even though he does not establish that a single XRP purchase was made for the purposes of investing as a result of the alleged conduct). However, Mr. [REDACTED] elsewhere acknowledges that jargon used in a given industry or setting does not necessarily align with traditional word uses; in particular, he points out that when he uses words like “coin” and “token” in his report, he does not imply “currency.”<sup>65</sup> Mr. [REDACTED] offers no explanation as to why he applies this understanding selectively throughout his report.

45. It is also worth noting that in section 7.2 of his report, Mr. [REDACTED] states, “[t]he most popular forum, by number of posts, on XRP Chat is the ‘XRP Trading and Price Speculation’ forum which currently has over 200,000 posts discussing issues related to the trading and investment case for XRP, as noted in its sub-header: ‘Speculation about trading and price of XRP. Technical trading tips, fundamental analysis.’”<sup>66</sup> This is the closest Mr. [REDACTED] gets to actual empirical analysis of the XRP purchaser “perspective” in the entire report. He does not, however, articulate what percentage of actual or potential XRP purchasers contribute to the chat or read it, whether this sample is representative of all the XRP actual and potential purchasers (including institutional ones), whether any of the 200,000 posts mention using XRP for transactions (or any other systematic analysis of the content), or whether it is feasible to establish a causal relationship between the content of the posts and the alleged conduct (or whether the posts are based entirely on pre-existing beliefs and general economic principles). There is a

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<sup>64</sup> [REDACTED] Report, ¶¶52, 81.

<sup>65</sup> [REDACTED] Report, footnote 2.

<sup>66</sup> [REDACTED] Report, ¶54.

reliable analytical method that could have been applied to these posts to answer these questions;<sup>67</sup> Mr. [REDACTED] did not use it.

**C. Mr. [REDACTED] “review and analysis” does not evaluate any actual or potential XRP purchaser’s perspective except for his own**

46. One way of characterizing Mr. [REDACTED] analysis is that he conducted a survey of one actual or potential XRP purchaser – himself. This interpretation highlights the inadequacy of his method. To the best of my knowledge, no test of a causal proposition would be published in an academic journal or accepted by a court in litigation with a sample size of one.<sup>68</sup> For example, Yates, et al. (1999) state that such a study would not be trusted:

You would not trust the results of an experiment that fed each diet to only one rat. The role of chance is too large if we use two rats and toss a coin to decide which is fed the new diet. The more rats we use, the more likely it is that randomization will create groups that are alike on the average. When differences among the rats are averaged out, only the effects of the different treatments remain. Here is a third principle of statistical design of experiments, called *replication*: repeat each treatment on a large enough number of

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<sup>67</sup> “[C]ontent analysis is a method of collecting social data through carefully specifying and counting social artifacts such as books, songs, speeches, and paintings. Without making any personal contact with people, you can use this method to examine a wide variety of social phenomena.... [C]ontent analysis is the study of recorded human communications. Among the forms suitable for study are books, magazines, web pages, poems, newspapers, songs, paintings, speeches, letters, e-mail messages, bulletin board postings on the Internet, laws, and constitutions, as well as any components or collections thereof. ... Content analysis is particularly well suited to the study of communications and to answering the classic question of communications research: ‘Who says what, to whom, why, how, and with what effect?’ ... Common units of analysis in content analysis include elements of communications—words, paragraphs, books, and so forth. Standard probability-sampling techniques are sometimes appropriate in content analysis.” Babbie (2010), pp. 229, 333, 359.

<sup>68</sup> Hibberts, et al. (2012) note that a key decision when conducting a research study is “deciding the appropriate sample size. The simplest answer is that the bigger the sample the better, but this assumes the sampling method is appropriate and implemented correctly. In inferential statistics, bigger is better because it results in smaller standard errors, greater statistical power or fewer Type II errors in hypothesis testing, and tighter or narrower confidence intervals in estimation. A Type II error occurs when a researcher fails to reject a false null hypothesis. (In contrast, a Type I error occurs when a researcher rejects a true null hypothesis; the null hypothesis typically states that there is no relationship in the population).” Hibberts, Mary, R. Burke Johnson, and Kenneth Hudson. “Common Survey Sampling Techniques.” *Handbook of Survey Methodology for the Social Sciences*. Ed. Lior Gordon. Springer, 2012, p. 69.

See also Yates, et al. (1999), p. 276. “One important point should be made immediately, however: *experiments with many subjects are better able to detect differences among the effects of the treatments than similar experiments with fewer subjects.*” (emphasis in original).

experimental units or subjects to allow the systematic effects of the treatments to be seen.” (emphasis in original)

Babbie (2010) also discusses in a general example of sample size selection how “[o]bviously, it wouldn’t be a very good idea to select a sample of only one, because the chances are great that we’ll miss the true mean [] by quite a bit... The progression of sampling distributions is clear. Every increase in sample size improves the distribution of estimates of the mean.... The larger the sample selected, the more accurate it is as an estimation of the population from which it was drawn.”<sup>69</sup>

47. Certain statements in the [REDACTED] Report make clear that Mr. [REDACTED] has effectively taken this unsupportable approach, akin to a survey of himself. For example, Mr. [REDACTED] states, “[b]ased on my experience investing in digital assets, a reasonable purchaser of XRP would understand that if Ripple’s ambitious cross-border payment business were successful, the ensuing demand for XRP would tremendously increase the price of XRP.”<sup>70</sup> That opinion is not grounded in any scientifically recognized methodology.

48. Evaluating Mr. [REDACTED] approach in this way demonstrates that it is unreliable and unscientific for a variety of reasons, some of which include:

- a. Mr. [REDACTED] is aware of the purpose and sponsor of the study as well as the desired outcome for the sponsor, thus the “survey” is “double-non-blind,” as opposed to the gold-standard “double-blind” approach. The importance of double-blindness of a study has been well-documented in the literature:

One way to protect the objectivity of survey administration is to avoid telling interviewers who is sponsoring the survey.

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<sup>69</sup> Babbie (2010), pp. 201-202.

<sup>70</sup> [REDACTED] Report, ¶24, emphasis added. See also [REDACTED] Report, ¶88. “Based on my professional experience in the blockchain space, in part as an investor and trader in digital assets, as well as my analysis of the public statements, documents, and design decisions of Ripple, I am able to reach the following findings and conclusions” (emphasis added).

Interviewers who know the identity of the survey's sponsor may affect results inadvertently by communicating to respondents their expectations or what they believe are the preferred responses of the survey's sponsor. To ensure objectivity in the administration of the survey, it is standard interview practice in surveys conducted for litigation to do double-blind research whenever possible: Both the interviewer and the respondent are blind to the sponsor of the survey and its purpose. Thus, the survey instrument should provide no explicit or implicit clues about the sponsorship of the survey or the expected responses. Explicit clues could include a sponsor's letterhead appearing on the survey; implicit clues could include reversing the usual order of the yes and no response boxes on the interviewer's form next to a crucial question, thereby potentially increasing the likelihood that no will be checked.<sup>71</sup> (Diamond (2011))

A double-blind experiment guards against experimenter bias, because neither the experimenter nor the subject knows which subjects are in the control group(s) and which in the experimental group(s).<sup>72</sup> (Babbie (2010))

Experimenters must take great care to deal with all experimental units or subjects in exactly the same way, so that the treatments are the only systematic differences present. Unequal conditions introduce bias . . . . [An] experiment should therefore be double-blind.<sup>73</sup> (Yates, et al. (1999))

With double blinding, neither the study object (e.g., a patient) nor the implementer of the treatment is aware of which group the study object is assigned to. If participants in the experiment know which treatment was given to the subjects, their behavior may be affected, which may bias the estimate of the treatment effect from the experiment.<sup>74</sup> (The Royal Swedish Academy of Sciences (2021))

- b. The sample size of one is insufficient as discussed above.<sup>75</sup>

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<sup>71</sup> Diamond (2011), at pp. 410-411.

<sup>72</sup> Babbie (2010), p. 250.

<sup>73</sup> Yates, et al. (1999), pp. 277-278.

<sup>74</sup> The Royal Swedish Academy of Sciences (2021), p. 7, footnote 7.

<sup>75</sup> See, for example, Yates, et al. (1999), p. 276; Babbie (2010), pp. 201-202.



- c. As discussed above, the target population consists of “all elements (i.e., individuals or other units) whose characteristics or perceptions the survey is intended to represent.”<sup>76</sup> It is not clear whether Mr. [REDACTED] is in the relevant target population, which based on Mr. [REDACTED] report would be “individuals, institutional investors, and financial services companies,”<sup>77</sup> for two reasons:
- i. First, he does not specify whether he ever purchased or considered purchasing XRP or sufficiently similar digital assets personally;
  - ii. Second, even if Mr. [REDACTED] did have that experience, he provides no basis to suggest that he has any experience on which to describe how “institutional investors” or “financial services companies” would view at-issue “statements, actions, and product offerings.”
- d. There is no control group in Mr. [REDACTED] approach, *not* exposed to the at-issue conduct, thus it is impossible to separate the impact of the conduct on purchaser “perspective” from preexisting beliefs and other potential influences.<sup>78</sup> Mr. [REDACTED] “analysis” does not allow him to separate the supposed impact of Ripple’s conduct on the purchaser “perspective” from other potential influences such as preexisting beliefs (e.g., based on general principles of economics).
- e. Mr. [REDACTED] does not mention whether he was exposed to any of the alleged Ripple conduct prior to being retained as an expert in this matter and whether he purchased XRP as an “investment” as a result of such exposure.

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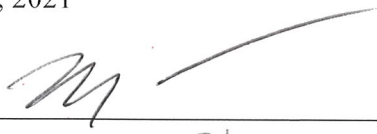
<sup>76</sup> Diamond (2011), at p. 376. (See also footnote 37 above).

<sup>77</sup> [REDACTED] Report, ¶2.

<sup>78</sup> For example, Diamond (2011) notes that “[w]ithout the control group, it is not possible to determine how much of the [outcome] is attributable to respondents’ preexisting beliefs or other background noise (e.g., respondents who misunderstand the question or misstate their responses).” Diamond (2011), at pp. 397-399.

49. Each of these defects is independently fatal to Mr. [REDACTED] analysis from a scientific perspective. Accordingly, it is my opinion that Mr. [REDACTED] report lacks any valid methodology, rendering its conclusions unreliable.

I declare under penalty of perjury that the foregoing is true and correct. Executed on November  
12, 2021

  
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Kristina Shampanier

## **Appendix A – Curriculum Vitae**

**KRISTINA S. SHAMPANIER, PH.D.**  
**Senior Vice President**

T: +1 617 372 4928  
kshampanier@compasslexecon.com

55 South Lake Avenue, Suite 650  
Pasadena, CA 91101

Dr. Shampanier is an expert in consumer behavior and survey and experiment design. She has over 15 years of experience in designing, conducting, and analyzing lab, field, and online studies in academic, consulting, and litigation settings, as well as evaluating studies carried out by others. She has worked on class action, false advertisement, consumer safety, trademark, trade dress, and patent infringement cases, as well as antitrust and healthcare matters. These cases span a wide variety of industries, including consumer products, banking, high tech, online retail, entertainment, hospitality, luxury, and auto industries. Dr. Shampanier has published in peer-reviewed journals in the fields of mathematics and marketing.

### **EDUCATION**

|      |   |
|------|---|
| 2007 | Ph.D., marketing (management science), MIT Sloan School of Management<br><i>Dissertation</i> : “Essays in Behavioral Decision Making”   |
| 2002 | M.A., economics ( <i>cum laude</i> ), New Economic School, Moscow, Russia<br><i>Thesis</i> : “Branding”   |
| 2001 | M.S., mathematics ( <i>cum laude</i> ), Moscow State University<br><i>Specialization</i> : Algebra<br><i>Thesis</i> : “Ranks of Subalgebras of Free Non-Associative Algebras” |

### **EXPERIENCE**

|           |   |
|-----------|---|
| 2005–2021 | Compass Lexecon<br><i>Senior Vice President (2021–Present)</i>  |
| 2005–2021 | Analysis Group Inc.<br><i>Consultant (2020–2021)</i><br><i>Vice President (2016–2020)</i><br><i>Manager (2009–2015)</i><br><i>Associate (2007–2009)</i><br><i>Intern Associate (2005)</i> |

- 2003–2007 MIT Sloan School of Management  
*Research Assistant, Professor Dan Ariely (2003–2007)*  
*Teaching Assistant, Consumer Behavior, Professor Yehoshua Tsal (2005–2006)*  
*Teaching Assistant, Managerial Psychology Laboratory, Professors Tom Allen and Dan Ariely (2003–2005)*
- 2002 New Economic School, Moscow, Russia  
*Teaching Assistant, Econometrics III, Professor Stanislav Anatoliev*

## SELECTED EXPERT CASEWORK

- **Household chemicals false advertising class action**  
 Conducted conjoint analysis survey and market simulations to evaluate the price premium associated with a challenged advertising claim on behalf of the defendants. Submitted a letter to counsel and expert declaration describing the methodology and results. The findings were used by counsel at mediation negotiations to evaluate potential range of damages. The case settled after one day of mediation.  
 Conducted similar analysis for a related case involving an allegedly omitted warning. Submitted a letter to counsel and expert declaration.
- **Beauty products trademark infringement**  
 Designed an experiment/survey to test for consumer confusion in a trademark infringement matter involving a beauty product for the defendant (applicant) before the Trademark Trial and Appeal Board of the US Patent and Trademark Office. Filed an expert report, after which the opposer withdrew all oppositions.
- **Banking false advertising class action**  
 Conducted an online survey in the choice experiment format on behalf of the defendant to evaluate whether the allegedly misleading omission had an impact on consumer purchase decisions.
- **Fast food employment litigation**  
 Evaluated the possibility of interviewing class members and reviewed the opposing expert’s approach on behalf of the defendant, a fast-food chain.
- ***A.R., by and through Her Next Friend, Susan Root, et al., v. Elizabeth Dudek, in Her Official Capacity as Secretary of the Agency for Health Care Administration, et al. and United States of America v. The State of Florida***  
*US District Court, Southern District of Florida*  
 Evaluated on behalf of the defendant a set of unscripted interviews conducted by the plaintiffs’ expert in a health care case involving preferences of patients’ families. Submitted rebuttal expert report and was deposed.
- **Hospitality business trademark infringement**  
 Designed and fielded an “Eveready” experiment/survey to test for consumer confusion in a trademark infringement matter in the hospitality business for the defendant (registrant) before the Trademark Trial and Appeal Board of the US Patent and Trademark Office.
- **Electronics false advertising**  
 Submitted three reports on behalf of the challenged party in a case considered by the National Advertising Division of the Council of Better Business Bureaus. Opined on the merits of the design of a consumer electronics product test conducted for advertising claims.

## SELECTED CONSULTING EXPERIENCE

### Intellectual Property

#### ▪ Trademark and trade dress infringement matters

Developed numerous online experimental design surveys in the “Eveready” and “Squirt” format and rebuttal analyses of “Eveready” surveys testing consumer perception and confusion with respect to wordmarks, design marks, trade dress, and an advertising slogan in a variety of cases, including in clothing, compliance, food, fashion, auto, luxury goods, entertainment, outdoor activities, and music industries. Addressed issues of materiality (via a choice experiment survey and open-ended purchase driver survey), dilution, and secondary meaning. Assisted experts in survey design, implementation, and analysis of surveys, as well as in drafting reports and preparations for depositions. Assisted counsels with preparation for depositions of opposing experts. Such cases include:

- ***Denimafia Inc. v. New Balance Athletic Shoe, Inc. et al. and New Balance Athletic Shoe, Inc. v. Denimafia Inc.***

*US District Court, Southern District of New York*

Supported Professor Joel Steckel, who was retained by New Balance, the defendant and counter-claimant in a trademark infringement matter involving the “less is more”  $\Leftrightarrow$  symbol used on New Balance Minimus footwear. Assisted Professor Steckel in designing, fielding, and analyzing an “Eveready” survey/experiment testing for reverse confusion (i.e., confusion with respect to the source, sponsorship, or affiliation of Denimafia products), drafting report, and preparation for deposition. In its summary judgment in favor of New Balance, the court credited Professor Steckel’s survey with showing “a zero percent rate of reverse confusion with respect to the source of jeans bearing the  $\Leftrightarrow$  mark” and discounted Denimafia’s objections to the survey design. Denimafia appealed the summary judgment decision, but ultimately did not pursue the appeal and the appellate court dismissed it.

- **Luxury goods trademark infringement and dilution matter**

Developed an online experimental design survey to test whether consumers noticed and how they perceived a logo briefly appearing in a TV commercial. Evaluated opposing expert’s survey. Assisted expert in survey design, implementation, and analysis of survey; developing rebuttal points for opposing expert’s survey; drafting reports; and preparation for depositions; assisted counsel in preparation for deposition of opposing expert.

#### ▪ Smartphone and tablet patent infringement matters

Assisted experts in survey design, report drafting, and preparation for deposition and trial testimony. Evaluated opposing expert’s surveys (including a conjoint-style survey) aimed at isolating the value to consumers of the patented features in smartphones. Assisted counsel with preparation for and at depositions of opposing expert and data witnesses. Assisted at trial.

- ***Hitachi Maxell, Ltd. v. ZTE Corp. and ZTE USA Inc.***

*US District Court, Eastern District of Texas, Texarkana Division*

Supported Tülin Erdem, Professor of Business and Marketing at the NYU Stern School of Business, from case inception to trial on behalf of Maxell and Mayer Brown. Assisted in designing and implementing a survey of smartphone and tablet owners to assess the awareness and relative importance of a feature disclosed in one of the asserted patents: automatic GPS map orientation. The damages expert used the survey results to inform her

analysis of reasonable royalty damages. The jury found that the asserted patents were valid and infringed by ZTE, and awarded Maxell damages of \$43.3 million.

### **False Advertising**

- ***Kenneth Hobbs v. Brother International Corporation***

*US District Court, Central District of California*

Supported Professor Joel Steckel of New York University Stern School of Business in conducting two surveys on behalf of Brother International Corporation, the defendant in a consumer class action false advertising case. The plaintiff claimed that the printers at issue did not scan complete pages, causing the edges of images to be truncated. One survey evaluated consumer awareness of a printer's alleged malfunctioning. The other, a survey/experiment, addressed the materiality of this limitation to consumers. In its order denying class certification, the court cited the experiment involving more than 450 people who had purchased or planned to purchase a printer close to the time of the survey, which found that "consumers chose the Brother printer with nearly identical frequency regardless of whether they were made aware of the unscannable margin at the time of their selection." The plaintiff agreed to dismiss his case with prejudice and waive his right to appeal. Assisted Professor Steckel with design, implementation, and analysis of the studies; drafting reports and declarations; and preparation for deposition.

- **E-Retailer false advertising matter**

Supported Professor Joel Steckel in conducting two experiments on behalf of a major e-retailer accused of using misleading reference price terms (e.g., "Compare at"). In the first study, groups of consumers visiting the defendant's website were randomly assigned to view the reference price labels as either "MSRP" (manufacturer's suggested retail price) or "Compare" throughout their shopping session and subsequent website visits. No difference in the sales conversion rate was found. Further, a survey of consumers who made purchases during the study period showed no difference in recall of the product price, the reference price, or the term used with the reference price. The second study, conducted with an online consumer panel, found that consumers' understanding of reference prices did not depend on the label used (e.g., "was," "compare at," "compare," and "MSRP"). Assisted in design, implementation, and analysis of both studies, and in preparation of deposition and trial testimony.

- **Online services false advertising matter**

Evaluated opposing experts' surveys testing consumer perception of charges for an online service. Assisted in drafting report and counsel's briefs, as well as in preparation for depositions. Assisted counsel in preparation for depositions of opposing experts.

- **Cigarette false advertising matter**

Evaluated opposing counsel's survey-like methodology to evaluate consumer perception of cigarette packaging. Assisted expert in drafting declarations and report.

### **Corporate Acquisitions**

- **AT&T's acquisition of DIRECTV – survey of consumer preferences**

Supported Professor Ravi Dhar of the Yale School of Management in developing, conducting, and analyzing a survey examining consumer attitudes toward bundled Internet and television services, in a case widely covered by the media. AT&T and DIRECTV cited the outcome of the study in their applications to the Federal Communications Commission (FCC), pointing to the benefit to consumers

when Internet and television services are delivered by the same provider. The FCC and the Department of Justice approved the acquisition. Assisted Professor Dhar in survey design, implementation, and analysis, as well as report drafting.

## Antitrust

### ▪ Microsoft antitrust matters

- *Jim Hood, Attorney General ex rel. State of Mississippi v. Microsoft Corporation*  
*Chancery Court of Hinds County, Mississippi*
- *Pro-Sys Consultants Ltd. and Neil Godfrey v. Microsoft Corporation and Microsoft Canada Co./Microsoft Canada CIE*  
*Supreme Court of British Columbia*

Developed affirmative damages analysis and rebuttals of the plaintiffs’ damages analysis and class certification arguments in the cases involving allegations of Microsoft’s overcharging consumers for its operating systems, word processors, and spreadsheet products.

### ▪ Credit cards antitrust matter

Developed an online experimental design survey to expose issues with opposing expert’s survey testing consumer reaction to retailers’ potential credit card policies. Assisted expert in survey design, implementation, and analysis preparation of report; and in preparation for and at deposition. Assisted counsel in preparation for deposition of opposing expert.

### ▪ High tech antitrust matters, including *Advanced Micro Devices, Inc. v. Intel*

*US District Court, District of Delaware*

Analyzed incremental costs for price/cost analysis. Assisted in data production and analysis, drafting reports, deposition preparation, and at deposition.

## PUBLICATIONS

“Choice Experiments,” with Joel Steckel, Rebecca Kirk Fair, and Anne Cai in *Legal Applications of Marketing Theory*, Cambridge University Press, Jacob Gersen and Joel Steckel, eds., 2021, forthcoming

“Patient Quality of Life and Benefits of Leptin Replacement Therapy (LRT) in Generalized and Partial Lipodystrophy (GL, PL),” with Omer Ali, Keziah Cook, Edward Tuttle, Charles Gerrits, and Rebecca Brown, *Diabetes*, Vol. 61, Supplement 1, 1331-P, 2018

“How To Interpret A Contract? Ask Those Who’d Sign It,” with Omri Ben-Shahar, Lior Strahilevitz, Duo Jiang, and Rebecca Kirk Fair, *Law360*, March 21, 2018

“Survey And Real-World Data: A Winning Combination,” with Peter Simon, Riddhima Sharma, and Rebecca Kirk Fair, *Law360*, July 2017

“What Consumers Really Think about Reference Price Labels,” with Rebecca Kirk Fair, Laura O’Laughlin, Jesse Shea, and Joel Steckel, *Law360*, May 2017

“Probabilistic Price Promotions – When Retailing and Las Vegas Meet,” with Dan Ariely and Nina Mazar, *Management Science*, Vol. 63, No. 1, pp. 250-266, 2016



“Zero as a Special Price. The True Value of Free Products,” with Dan Ariely and Nina Mazar, *Marketing Science*, Vol. 26, No. 6, pp. 742-757 (lead article), 2007

“How Small Is Zero Price? The True Value of Free Products,” *Advances in Consumer Research*, Vol. 33, pp. 254-255, 2006

“Algorithms Realizing Rank and Primitivity of Systems of Elements of Free Non-Associative Algebras,” *Fundamental and Applied Mathematics*, Vol. 6, No. 4, pp. 1229-1238, 2000

## **SELECTED PRESENTATIONS, POSTERS, AND SPEAKING ENGAGEMENTS**

“Discrete Choice and SF-36 Estimates of Patient Quality of Life and Benefits of Leptin Replacement Therapy (LRT) in Generalized and Partial Lipodystrophy (GL, PL),” poster with Omer Ali, Keziah Cook, Don Lee, and Edward Tuttle, 21st European Congress of Endocrinology, Lyon, France, May 2019

“Surveying the Truth: False Advertising and Trademark Litigation,” with August Horvath and Joel Steckel, first webinar in the series, *Deceit and Denial: The Role Surveys Play in False Advertising and Trademark Litigation*, American Bar Association’s Section of Antitrust Law Advertising Disputes & Litigation Committee, February 2016

“Listening to Customers – How to Ask the Right Question, Surveys in Litigation,” recurrent lecture at Professors Jiwoong Shin and Aniko Oery’s M.B.A. classes, *Listening to the Customer*, Yale School of Management, 2012, 2013, 2015, and 2016

“How Small is Zero Price? The True Value of Free Products,” Association for Consumer Research, North American Conference, San Antonio, TX, and London Business School, 2005

## **PROFESSIONAL ASSOCIATIONS AND MEMBERSHIPS**

- American Marketing Association
- *Marketing Science* “Ambassador” (until 2018)

## **ACADEMIC HONORS**

|           |   |
|-----------|---|
| 2005–2006 | The Zannetos Fund Fellow, Massachusetts Institute of Technology |
| 2005–2006 | The Stuart Fund Fellow, Massachusetts Institute of Technology   |
| 2006      | AMA-Sheth Foundation Doctoral Consortium Fellow                 |
| 2004–2005 | MasterCard Fellow, Massachusetts Institute of Technology        |
| 2003      | The Russell Sage Summer Institute, Trento, Italy                |
| 2002–2003 | DuPont Fellow, Massachusetts Institute of Technology            |

## **LANGUAGES**

Russian (native), French (intermediate)

## **Appendix B – Materials Considered**

### **Court Documents**

- Answer of Defendant Ripple Labs, Inc. to Plaintiff’s Complaint, *Securities and Exchange Commission v. Ripple Labs, Inc., Bradley Garlinghouse, and Christian A. Larsen*, 20-cv-10832 (AT), United States District Court, Southern District of New York, January 29, 2021.
- Answer of Defendant Ripple Labs, Inc. to Plaintiff’s First Amended Complaint, *Securities and Exchange Commission v. Ripple Labs, Inc., Bradley Garlinghouse, and Christian A. Larsen*, 20-cv-10832 (AT), United States District Court, Southern District of New York, March 4, 2021.
- First Amended Complaint, *Securities and Exchange Commission v. Ripple Labs, Inc., Bradley Garlinghouse, and Christian A. Larsen*, 20 Civ. 10832 (AT), ECF Case, United States District Court, Southern District of New York, February 18, 2021.
- Expert Report of [REDACTED], October 4, 2021, *U.S. Securities and Exchange Commission v. Ripple Labs, Inc., Bradley Garlinghouse, and Christian A. Larson*, United States District Court, Southern District of New York.
- *Securities and Exchange Commission v. W. J. Howey Co. et al*, No. 328 U.S. 293, Supreme Court of the United States, 1946.

### **Academic Articles and Books**

- Assael, Henry. *Consumer Behavior, A Strategic Approach*. Houghton Mifflin Company, 2004.
- Babbie, Earl. *The Practice of Social Research*. Twelfth Edition. Wadsworth Cengage Learning, 2010.
- Diamond, Shari, S. “Reference Guide on Survey Research.” *Reference Manual on Scientific Evidence*. Third Edition. Federal Judicial Center, 2011, pp. 359-423.
- Hague, et al. *Market Research in Practice*. Kindle Edition, Third Edition. Kogan Page, 2016.
- Hibberts, Mary, R. Burke Johnson, and Kenneth Hudson. “Common Survey Sampling Techniques.” *Handbook of Survey Methodology for the Social Sciences*. Ed. Lior Gordon. Springer, 2012.
- Jacoby, Jacob, and Lynda Zadra-Symes. “Legal Issues That Can Be Examined via Surveys.” *Trademark Surveys: Volume 1: Designing, Implementing, and Evaluating Surveys*. Jacob Jacoby. ABA Book Publishing, 2013.
- Meyer, Bruce D. “Natural and Quasi-Experiments in Economics.” *Journal of Business & Economic Statistics* 13(2): 151-161, April 1995.
- Shadish, William R., Thomas D. Cook, and Donald T. Campbell. *Experimental and Quasi-Experimental Designs for Generalized Causal Inference*. Wadsworth Cengage Learning, 2002.
- Yates, Daniel, David Moore, and George McCabe. *The Practice of Statistics*. First Edition. W.H. Freeman, 1999.

### **Other Publicly Available Materials**

- The Royal Swedish Academy of Sciences. “Scientific Background on the Sveriges Riksbank Prize in Economic Sciences in Memory of Alfred Nobel 2021 - Answering Causal Questions

Using Observational Data,” available at <https://www.nobelprize.org/uploads/2021/10/advanced-economicsciencesprize2021.pdf>.

- The Royal Swedish Academy of Sciences. “The Prize in Economic Sciences 2019,” available at <https://www.nobelprize.org/uploads/2019/10/press-economicsciences2019-2.pdf>.

## Appendix C – Examples of Mr. [REDACTED] Unsupported Causal Propositions

| ¶  | Statement (Unsupported conclusion bolded)  | Section  |
|----|--|--|
| 8  | Based on my experience in the digital asset space, I conclude that a <b>reasonable purchaser would have had an expectation</b> of future profit derived from the efforts of Ripple. Specifically, <b>purchasers would have expected or hoped to profit by later re-selling their XRP at a higher price on a secondary market</b> after XRP substantially increased in value [...] Although <b>Ripple's development of the blockchain and broader XRP ecosystem, along with its promotion of the bull case for buying XRP</b> , would not guarantee a profit, it <b>would create the hope that a purchaser could passively earn profits by owning XRP</b> while Ripple took steps to increase the value of the coin.                      | 2. Summary of findings   |
| 9  | there are certain elements in Ripple's and its founders' design of XRP, the XRP Ledger, and a variety of software products that <b>appealed more to a purchaser of XRP interested in making a profit than to financial institutions seeking to embrace Ripple's stated vision of utilizing XRP as a bridge asset for cross-border asset transfers</b>  | 2. Summary of findings   |
| 24 | Based on my experience investing in digital assets, a <b>reasonable purchaser of XRP would understand that if Ripple's ambitious cross-border payment business were successful, the ensuing demand for XRP would tremendously increase the price of XRP.</b>   | 5. Features of XRP Coin<br>Economics and Suitability as a Bridge Asset |
| 26 | <b>Potential purchasers of XRP would have understood the simple economics behind the message being promoted by Ripple on this subject: XRP, as designed, provided a mechanism for passive XRP owners to benefit financially from Ripple's success</b> as a provider of financial service products built on the XRP Ledger, as a developer of the XRP ecosystem, and as a driver of demand for XRP.   | 5. Features of XRP Coin<br>Economics and Suitability as a Bridge Asset |
| 31 | The correlation between the success of the platform and price of the coin is fantastic for investment-oriented purchasers of XRP, but not for the purchasers who are exclusively interested in the utility use of the cross-border payment product. <b>From the perspective of a reasonable investment-oriented purchasers, the fixed-supply and variable-price model provides a direct link between 1) the success of Ripple's efforts to build the XRP ecosystem and stimulate demand for XRP and 2) the financial performance of the purchaser's investment in XRP. From the perspective of a utility-oriented purchaser, as discussed above, the fixed-supply and variable price model of XRP presents significant disadvantages</b> | 5. Features of XRP Coin<br>Economics and Suitability as a Bridge Asset |

|    |  |   |
|----|--|---|
| 37 | These points would <b>appeal to an individual purchaser with a long-term investment mindset</b> , and were repeatedly communicated by Ripple in the XRP Markets Reports.   | 6. XRP Sale and Escrow Mechanics                    |
| 43 | Although Ripple continued to sell XRP into the open market on a regular basis, this <b>significant restriction of the XRP supply would have greatly encouraged potential investment-oriented purchasers of XRP to earn a speculative investment profit with their purchase.</b>  | 6. XRP Sale and Escrow Mechanics                    |
| 47 | <b>Although the buyback activity would not have mattered to purely utility-oriented purchasers of XRP, buybacks are very important signals for investment-oriented purchasers.</b>   | 6. XRP Sale and Escrow Mechanics                    |
| 48 | The manner and mechanism of Ripple’s ongoing sales, distribution, escrow, and <b>buybacks of XRP would have been extremely important to a potential investment-oriented purchaser of XRP</b>   | 6. XRP Sale and Escrow Mechanics                    |
| 49 | On the other hand, a <b>reasonable purchaser of XRP that is exclusively considering the utility use of the coin would be less concerned with some of these heavily promoted sales and distribution mechanisms.</b>   | 6. XRP Sale and Escrow Mechanics                    |
| 65 | Another type of partnership that <b>would have appealed to a purchaser interested in the investment use case for XRP</b> was solidified by an agreement between Ripple and a provider of retirement investment accounts. Ripple announced that purchasers could buy XRP through Bitcoin IRA’s retirement accounts.   | 7. Ripple Communications and Promotional Statements |
| 85 | Ripple’s extensive public comments and reports about these topics likely served to <b>inform and persuade investment-oriented purchasers</b> about the potential reward of purchasing XRP for the purpose of generating a profit. Indeed, the <b>use of terms such as “traction,” “market fit,” “total addressable market,” and even “investors” when describing Ripple’s progress and growth potential are words typically understood by market participants to mean that they should view buying XRP as a potentially profitable investment.</b> | 7. Ripple Communications and Promotional Statements |
| 86 | Purchasers of XRP for cross-border payments would also be <b>interested in some of these topics, but not all.</b> For example, a money transmitter <b>likely cares deeply</b> about specific topics like the liquidity of the digital asset trading platforms it needs to rely on to complete an ODL transaction, but <b>is less interested</b> in Ripple’s communications about the bull case for the price of XRP.   | 7. Ripple Communications and Promotional Statements |
| 87 | It is my opinion from carefully following the digital asset space that <b>many of Ripple’s public communications conveyed to reasonable purchasers of XRP an expectation of future profit derived from the efforts of Ripple.</b>  | 7. Ripple Communications and Promotional Statements |

|    |  |  |
|----|--|--|
| 89 | Over the course of the Issuance Period a <b>reasonable purchaser of XRP would have had an expectation of generating profit</b> based on the efforts of Ripple and its management to accomplish the growth strategies that Ripple advertised to the public as being already achieved or planned for the future.   | 8. Summary of Findings and Conclusions |
| 89 | Given this relationship between Ripple's performance and the price of XRP, a <b>reasonable purchaser would have closely considered many factors</b> that were publicized by Ripple such as disclosed partnerships with financial institutions, the quality of Ripple's management team, the target addressable market for Ripple's products, and the availability of liquidity on trading platforms for XRP. | 8. Summary of Findings and Conclusions |
| 90 | <b>Certain aspects of the design characteristics of XRP and the promotional activity of Ripple did not appeal to a pure utility use case.</b>  | 8. Summary of Findings and Conclusions |